AMENDMENTS TO THE DRAWING

Kindly enter the attached substitute drawing sheets 1-5 of 5. No new matter is added. The drawing amendment is limited to a rearrangement of the figure ordering in the drawing sheets.

REMARKS

Introduction:

Applicants herewith amend claims 1, 3, 6, 11, 13-19, 21 and 23-29. Basis for the amendments may be found in the original claims and throughout the specification (at pages 6 and 13, for example). Claims 1-30 remain in the application. Applicants respectfully request reexamination and reconsideration of claims 1-30 as amended.

Discussion of the Rejection of Claims 1-3, 6-7, 10-13, 16-17 and 20:

In the Office Action mailed on December 16, 2004, Examiner rejects claims 1-3, 6-7, 10-13, 16-17 and 20 under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 4,745,593 issued to Stewart (Stewart'593) in view of U.S. Patent No. 5,095,480 issued to Fenner (Fenner'480). Applicants respectfully traverse these rejections for the following reasons.

Applicants respectfully assert that Examiner has not stated a proper *prima facie* case of obviousness. According to the Manual for Patent Examining Procedure (MPEP) §2142, a proper *prima facie* case of obviousness can be established only when all of three basic criteria ("prongs") are met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art references when combined must teach or suggest all the claim limitations.

Regarding the first prong, the initial burden is on the Examiner to provide some **suggestion** of the desirability of doing what the inventor has done. The Examiner recites several **"motivations"** that may be found in Applicants' disclosure for the suggested combination of Stewart'593 and Fenner'480 but recites no evidence or **suggestion** for such combination from the prior art, despite the clearly-felt need for and the several motivating advantages of the

combination discussed by Applicants in the present application. The teaching or **suggestion** to make the claimed combination and the reasonable expectation of success **must both be found in the prior art**, and not based on Applicants' disclosure [*In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991)]. The level of skill in the art cannot be relied upon to provide the **suggestion** to combine references [*Al-Site Corp. v. VSI Int'l Inc.*, 174 F.3d 1308, 50 USPQ2d 1161 (Fed. Cir. 1999)]. Thus, Applicants respectfully assert that the **motivations** recited by Examiner, which apparently rely on the Examiner's view of the level of skill in the art, are described only in the present application, which is alone insufficient to meet the first prong of a proper *prima facie* case of obviousness and Examiner recites no additional evidence or **suggestion** in the prior art for such combination.

Regarding the second prong, Applicants can find no discussion of the likelihood of success as found in the prior art in the office action of December 16, 2004 and therefore respectfully assert that the office action is insufficient to meet the second prong of a proper *prima facie* case of obviousness.

Regarding the third prong, even when combined, Stewart'593 and Fenner'480 do not anticipate every element of Applicants' claimed invention. Stewart'593 discloses a process for transmitting a test packet to a destination node and **responsively** returning a test result packet from the destination node to the source node, from which intermediate routing information is extracted at the source node only. Applicants respectfully traverse Examiner's characterization of Applicants' claimed "second feeler packet" as equivalent to the Stewart'593 "test result packet," which is neither *randomly*-propagated nor *independently*-originated as disclosed and claimed by Applicants. Fenner'480 discloses a technique for using unique immutable identifiers for all network nodes to support a routing system requiring only the unique immutable node identifiers for routing from source to destination nodes. Alone or in combination, neither Stewart'593 nor Fenner'480 consider or suggest Applicants' claimed solution to the optimal routing discovery problem, which includes the independent asynchronous transmission of unrelated randomly-propagating feeler packets from all network nodes disposed to transmit data to other nodes. Applicants herewith amend claims 1, 3, 6, 11, 13, and 16-17 to better and more

clearly describe that which is considered to be the invention and to correct several minor inadvertent informalities and ambiguities. Thus, even Stewart'593 does not completely anticipate the step of *sending, from the source node to a first **randomly-selected** one of the plurality of network nodes, a first feeler packet including first feeler data identifying the destination node and node transit log data identifying the source node,* as claimed by Applicants in base claims 1 and 11, and neither Stewart'593 nor Fenner'480 anticipates the step of ***independently from the first sending step (a),** sending, from the destination node to a second **randomly-selected** one of the plurality of network nodes, a second feeler packet including second feeler data identifying a network node and node transit log data identifying the destination node,* as claimed by Applicants in base claims 1 and 11. Moreover, neither Stewart'593 nor Fenner'480 anticipate the step of *in response to the receipt of a first received feeler packet at a first receiving node of a first received feeler packet having node transit log data identifying the source node; augmenting the node transit log in the first received feeler packet with data identifying the first receiving node to form an augmented first received feeler packet, seeking, in the first receiving node, a record of a second received feeler packet having node transit log data identifying the destination node, and, if the second received feeler packet is found, combining the node transit log data from the first and second received feeler packets to represent a path discovered for transferring at least one data packet from the source node to the destination node through the network, otherwise sending a copy of the augmented first received feeler packet to a second receiving node* as claimed by Applicants in base claims 1 and 11. Because of these facts, Applicants respectfully assert that the combination of Stewart'593 and Fenner'480 does not anticipate all elements of Applicants' claimed invention (as amended) and therefore is insufficient to meet the third prong of a proper *prima facie* case of obviousness. Because claims 2-3, 6-7 and 10 depend from base claim 1, Applicants further assert these arguments in connection with claims 2-3, 6-7 and 10, to which they apply with equal effect. Because claims 12-13, 16-17 and 20 depend from base claim 11, Applicants further assert these arguments in connection with claims 12-13, 16-17 and 20, to which they apply with equal effect.

For these reasons, Applicants' respectfully request reconsideration and withdrawal of the 35 U.S.C. §103(a) rejections of claims 1-3, 6-7, 10-13, 16-17 and 20, as amended.

Discussion of the Rejection of Claims 4-5, 8-9, 14-15 and 18-19:

In the Office Action mailed on December 16, 2004, Examiner rejects claims 4-5, 8-9, 14-15 and 18-19 under 35 U.S.C. §103(a) as being unpatentable over Stewart'593 in view of Fenner'480 in further view of U.S. Patent No. 5,649,108 issued to Spiegel *et al.* (Spiegel'108). Applicants respectfully traverse these rejections for the following reasons.

For the reasons set forth above in connection with the rejection of claims 1-3, 6-7, 10-13, 16-17 and 20, Applicants respectfully assert that Examiner has not stated a proper *prima facie* case of obviousness. According to the Manual for Patent Examining Procedure (MPEP) §2142, a proper *prima facie* case of obviousness can be established only when all of three basic criteria ("prongs") are met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art references when combined must teach or suggest all the claim limitations.

Applicants again respectfully assert that the **motivations** recited by Examiner for the suggested combination of Stewart'593, Fenner'480 and Spiegel'108, which apparently rely on the Examiner's view of the level of skill in the art, are described only in the present application, which is alone insufficient to meet the first prong of a proper *prima facie* case of obviousness and Examiner recites no additional evidence or **suggestion** in the prior art for such combination. Applicants can find no discussion of the likelihood of success as found in the prior art in the office action of December 16, 2004 and therefore again respectfully assert that the office action is insufficient to meet the second prong of a proper *prima facie* case of obviousness.

Regarding the second prong, Applicants can find no discussion of the likelihood of success as found in the prior art in the office action of December 16, 2004 and therefore respectfully assert that the office action is insufficient to meet the second prong of a proper *prima facie* case of obviousness.

Regarding the third prong, even when combined, Stewart'593, Fenner'480 and Spiegel'108 do not anticipate every element of Applicants' claimed invention. Applicants herewith amend claims 14-15 and 18-19 to better and more clearly describe that which is considered to be the invention and to correct several minor inadvertent informalities and ambiguities. Applicants further assert the arguments presented above in connection with claims 1-3, 6-7, 10-13, 16-17 and 20 for claims 4-5 and 8-9, to which they apply with equal effect because claims 4-5 and 8-9 depend from base claim 1. Applicants further assert the arguments presented above in connection with claims 1-3, 6-7, 10-13, 16-17 and 20 for claims 14-15 and 18-19 as amended, to which they apply with equal effect because claims 14-15 and 18-19 depend from base claim 11. Because of these facts, Applicants respectfully assert that the combination of Stewart'593 Fenner'480 and Spiegel'108 does not anticipate all elements of Applicants' claimed invention (as amended) and therefore is insufficient to meet the third prong of a proper *prima facie* case of obviousness.

For these reasons, Applicants' respectfully request reconsideration and withdrawal of the 35 U.S.C. §103(a) rejections of claims 4-5, 8-9, 14-15 and 18-19, as amended.

Discussion of the Rejection of Claims 21-23, 26-27, and 30:

In the Office Action mailed on December 16, 2004, Examiner rejects claims 21-23, 26-27, and 30 under 35 U.S.C. §103(a) as being unpatentable over Stewart'593 in view of Fenner'480 in further view of U.S. Patent No. 6,690,648 issued to Niida *et al.* (Niida'648). Applicants respectfully traverse these rejections for the following reasons.

For the reasons set forth above in connection with the rejection of claims 1-3, 6-7, 10-13, 16-17 and 20, Applicants respectfully assert that Examiner has not stated a proper *prima facie* case of obviousness. According to the Manual for Patent Examining Procedure (MPEP) §2142, a proper *prima facie* case of obviousness can be established only when all of three basic criteria ("prongs") are met. First, there must be some suggestion or motivation, either in the references

themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art references when combined must teach or suggest all the claim limitations.

Regarding the first prong, the initial burden is on the Examiner to provide some **suggestion** of the desirability of doing what the inventor has done. Applicants again respectfully observe that the Examiner recites several "**motivations**" that may be found in Applicants' disclosure for the suggested combination of Stewart'593, Fenner'480 and Niida'648 but recites no evidence or **suggestion** for such combination from the prior art, despite the clearly-felt need for and the several motivating advantages of the combination discussed by Applicants in the present application. The teaching or **suggestion** to make the claimed combination and the reasonable expectation of success **must both be found in the prior art**, and not based on Applicants' disclosure [*In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991)]. The level of skill in the art cannot be relied upon to provide the **suggestion** to combine references [*Al-Site Corp. v. VSI Int'l Inc.*, 174 F.3d 1308, 50 USPQ2d 1161 (Fed. Cir. 1999)]. Thus, Applicants respectfully assert that the **motivations** recited by Examiner, which apparently rely on the Examiner's view of the level of skill in the art, are described only in the present application, which is alone insufficient to meet the first prong of a proper *prima facie* case of obviousness and Examiner recites no additional evidence or **suggestion** in the prior art for such combination.

Regarding the second prong, Applicants can find no discussion of the likelihood of success as found in the prior art in the office action of December 16, 2004 and therefore respectfully assert that the office action is insufficient to meet the second prong of a proper *prima facie* case of obviousness.

Regarding the third prong, even when combined, Stewart'593, Fenner'480 and Spiegel'108 do not anticipate every element of Applicants' claimed invention. Stewart'593 discloses a process for transmitting a test packet to a destination node and **responsively**

returning a test result packet from the destination node to the source node, from which intermediate routing information is extracted at the source node only. Applicants respectfully traverse Examiner's characterization of Applicants' claimed "second feeler packet" as equivalent to the Stewart'593 "test result packet," which is neither *randomly*-propagated nor *independently*-originated as disclosed and claimed by Applicants. Fenner'480 discloses a technique for using unique immutable identifiers for all network nodes to support a routing system requiring only the unique immutable node identifiers for routing from source to destination nodes. Niida'648 discloses a method for coordinating asynchronous data transfer from source to destination nodes in a network by transferring logical retry delay information from the destination node to the source node and does not consider the dynamic network routing problem. Alone or in combination, neither Stewart'593, Fenner'480 nor Spiegel'108 consider or suggest Applicants' claimed solution to the optimal routing discovery problem, which includes the independent asynchronous transmission of unrelated randomly-propagating feeler packets from all network nodes disposed to transmit data to other nodes. Applicants herewith amend claims 21, 23 and 26-27. to better and more clearly describe that which is considered to be the invention and to correct several minor inadvertent informalities and ambiguities. Thus, even Stewart'593 does not anticipate a Computer Program Product (CPP) including *means recorded on the recording medium for directing the system to send, from the source node to a first **randomly-selected** one of the plurality of network nodes, a first feeler packet including first feeler data identifying the destination node and node transit log data identifying the source node*, as claimed by Applicants in base claim 21, and neither Stewart'593, Fenner'480 nor Niida'648 anticipate a CPP including *means recorded on the recording medium for directing the system to send, from the destination node to a second **randomly-selected** one of the plurality of network nodes, a second feeler packet including second feeler data identifying a network node and node transit log data identifying the destination node, **independently of the first feeler packet*** as claimed by Applicants in base claim 21. Moreover, neither Stewart'593, Fenner'480 nor Niida'648 anticipate a CPP including *means recorded on the recording medium for directing the system to seek in the first receiving node a **record of a second received feeler packet** having node transit log data identifying the destination node* as claimed by Applicants in base claim 21. Because of these facts, Applicants respectfully assert that the combination of Stewart'593, Fenner'480 and Niida'648 does not

anticipate all elements of Applicants' claimed invention (as amended) and therefore is insufficient to meet the third prong of a proper *prima facie* case of obviousness.

For these reasons, Applicants' respectfully request reconsideration and withdrawal of the 35 U.S.C. §103(a) rejections of claims 21-23, 26-27, and 30, as amended.

Discussion of the Rejection of Claims 24-25 and 28-29:

In the Office Action mailed on December 16, 2004, Examiner rejects claims 24-25 and 28-29 under 35 U.S.C. §103(a) as being unpatentable over Stewart'593 in view of Fenner'480 in further view of Niida'648 and in further view of Spiegel'108. Applicants respectfully traverse these rejections for the following reasons.

For the reasons set forth above in connection with the rejection of claims 21-23, 26-27, and 30, Applicants respectfully assert that Examiner has not stated a proper *prima facie* case of obviousness. According to the Manual for Patent Examining Procedure (MPEP) §2142, a proper *prima facie* case of obviousness can be established only when all of three basic criteria ("prongs") are met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art references when combined must teach or suggest all the claim limitations.

Applicants again respectfully assert that the **motivations** recited by Examiner for the suggested combination of Stewart'593, Fenner'480, Spiegel'108 and Niida'648, which apparently rely on the level of skill in the art, are described only in the present application and thus are alone insufficient to meet the first prong of a proper *prima facie* case of obviousness and Examiner recites no additional evidence or **suggestion** in the prior art for such combination. Applicants can find no discussion of the likelihood of success as found in the prior art in the office action of December 16, 2004 and therefore again respectfully assert that the office action is insufficient to meet the second prong of a proper *prima facie* case of obviousness.

Regarding the second prong, Applicants can find no discussion of the likelihood of success as found in the prior art in the office action of December 16, 2004 and therefore respectfully assert that the office action is insufficient to meet the second prong of a proper *prima facie* case of obviousness.

Regarding the third prong, even when combined, Stewart'593, Fenner'480, Niida'648 and Spiegel'108 do not anticipate every element of Applicants' claimed invention. Stewart'593 discloses a process for transmitting a test packet to a destination node and responsively returning a test result packet from the destination node to the source node, from which intermediate routing information is extracted at the source node only. Fenner'480 discloses a technique for using unique immutable identifiers for all network nodes to support a routing system requiring only the unique immutable node identifiers for routing from source to destination nodes. Niida'648 discloses a method for coordinating asynchronous data transfer from source to destination nodes in a network by transferring logical retry delay information from the destination node to the source node and does not consider the dynamic network routing problem. Spiegel'108 discloses a network routing method that dynamically adjusts or rejects a predetermined source-destination routing during transit by consulting local transit "cost" data accumulated by intermediate nodes from the surrounding neighborhood, obliging the source node to retry upon rejection. Alone or in combination, neither Stewart'593, Fenner'480, Niida'648 nor Spiegel'108 consider or suggest Applicants' claimed solution to the optimal routing discovery problem, which includes the independent asynchronous transmission of unrelated randomly-propagating feeler packets from all network nodes disposed to transmit data to other nodes. Applicants herewith amend claims 24-25 and 28-29 to better and more clearly describe that which is considered to be the invention and to correct several minor inadvertent informalities and ambiguities Applicants further assert the arguments presented above in connection with claims 21-23, 26-27, and 30 for claims 24-25 and 28-29 as amended, to which they apply with equal effect because claims 24-25 and 28-29 depend from base claim 21. Because of these facts, Applicants respectfully assert that the combination of Stewart'593, Fenner'480, Niida'648 and Spiegel'108 does not anticipate all elements of Applicants' claimed

invention (as amended) and therefore is insufficient to meet the third prong of a proper *prima facie* case of obviousness.

For these reasons, Applicants' respectfully request reconsideration and withdrawal of the 35 U.S.C. §103(a) rejections of claims 24-25 and 28-29, as amended.

The Commissioner is hereby authorized to charge to Deposit Account No. 50-1078 the amount of $120.00 and all additional fees required to cover the applicable fee for a large entity as set forth in 37 C.F.R. §1.17(a) for a one month extension of time. Two copies of this letter are enclosed.

Respectfully submitted,

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